NWS FORM E-5 (11-88) (PRES. by NWS Instruction 10-924)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) WFO Jackson, Mississippi
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		REPORT FOR: MONTH August YEAR 2011
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283		SIGNATURE **Alan E. Gerard, Meteorologist In-Charge** DATE **09/22/2011**

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

[X] **An X inside this box indicates that no river flooding occurred within this hydrologic service area.**

Synopsis...

The month of August was hot and dry over most of the Hydrologic Service Area (HSA). Temperatures ranged from 1 to 5 degrees above normal at our airport locations. Vicksburg-Tallulah Airport reported 13 days with temperatures at or above 100 degrees while Jackson-Evers reported 7 days at or above 100 degrees. Most of the area had below normal rainfall with the exception of the extreme northern HSA. This area had monthly rainfall at or above normal.

The month opened with a southerly flow at the surface and a strong upper level high pressure. Temperatures were very hot and showers were isolated to scattered. No rainfall was reported on the 3rd. Scattered showers and thunderstorms were common in northern and eastern portions of the HSA through the 10th. The most significant rainfall, from 1.00 to 3.00 inches, occurred along the eastern portions of the state on the 4th.

From the 11th to 12th, a frontal system drifted slowly southward before washing out along the Mississippi Coast on the 13th. Scattered showers and thunderstorms were common across the area. The most significant rainfall, from 2.00 to 4.00 inches, occurred across Southeast Arkansas. A cold front accompanied by only scattered light showers pushed across the area on the 14th and was located just south of our Northeast Louisiana Parishes and along the Mississippi Gulf Coast by the morning of the 15th. The HSA received a short break from the high humidity and excessive temperature until the front moved back to the north as a warm front on the 17th. Through the 21st, showers and thunderstorms were once again scattered across the area as Gulf moisture returned to the area.

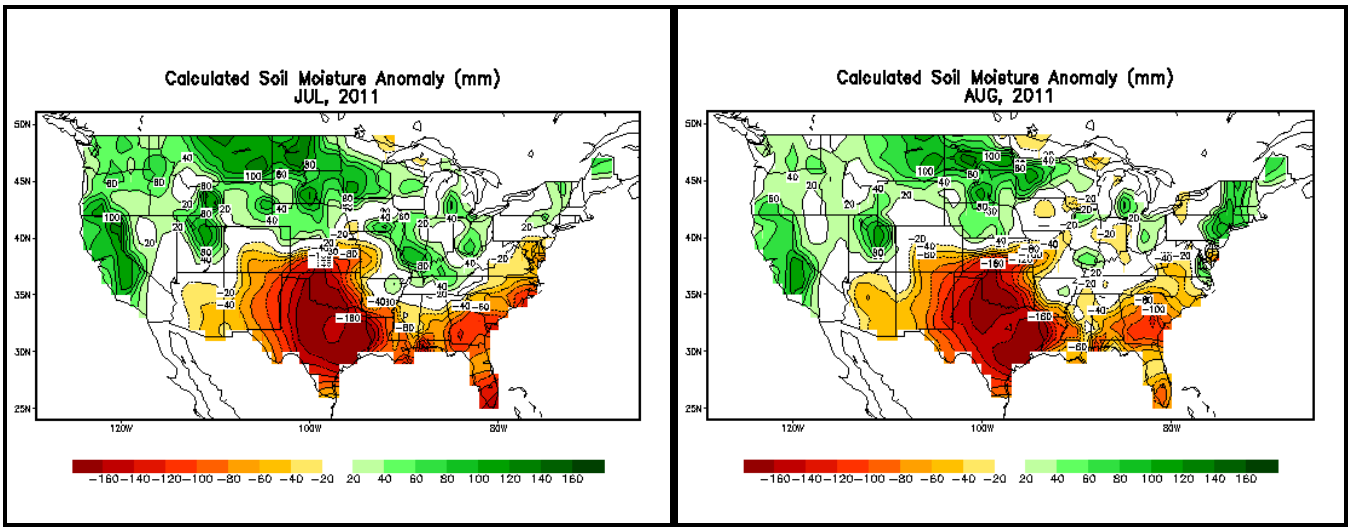
Another cold front dropped into Mississippi on the 22nd. The front stalled along a line from Southeast Arkansas to near Meridian, MS through the 23rd. The front pulled to the northeast on the 24th allowing a return flow from the Gulf of Mexico through much of the 25th. Scattered showers and thunderstorms were reported across much of the HSA from the 22nd to the 25th. Another cold front moved across the HSA from the 26th to 27th. The front brought a drier airmass into the region with cooler nighttime

temperatures. High pressure controlled the weather through the 30th. By the 31st, high pressure had shifted much further to the east allowing a return of warm, humid air from the Gulf. No rainfall occurred through the end of the month except a small area of light showers on 29th across Southeast Arkansas and north portions of Northeast Louisiana.

River and Soil Conditions...

Some of the drier areas in our HSA, Southeast Arkansas and the Middle Yazoo Delta region, received much needed rainfall. Rainfall, from 85 to 200 percent of normal, fell along a line from Morehouse Parish, LA through Southeast Arkansas to Grenada and Webster Counties. South of this line below normal conditions prevailed across most of the area. Rainfall ranged from less than 10 percent of normal to 75 percent of normal. Small portions of Simpson, Jones, and the extreme eastern counties of Mississippi had above normal rainfall.

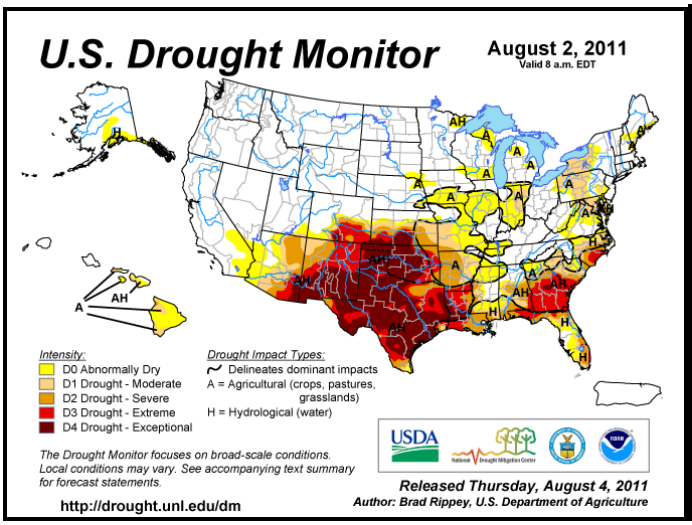
The driest area in the HSA continued to be across Northeast Louisiana where soil moisture deficits ranged from 4.00 to 5.00 inches. The least dry location in the HSA was in northeast portions of Mississippi where soil moisture deficits ranged from 1.00 to 2.00 inches. Southeast Arkansas saw soil moisture deficit improvement. These deficits ranged from 2.00 to 4.00 inches. The 2.00 to 4.00 inch deficit also prevailed across South and Central Mississippi.



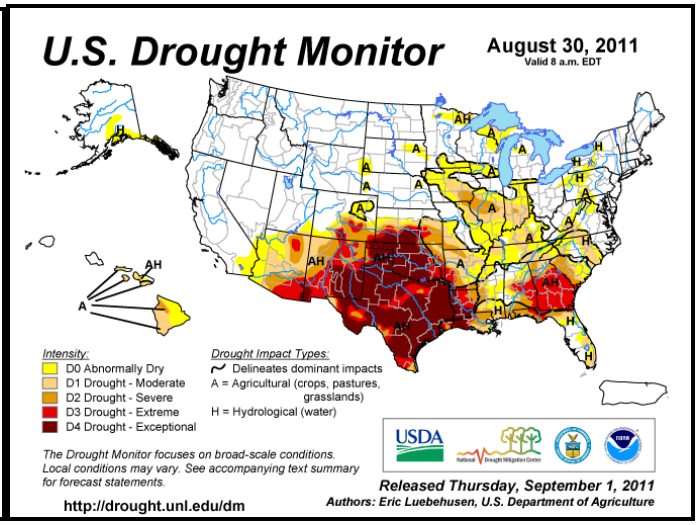
JULY 2011 **AUGUST 2011**

Soil Moisture anomaly (departure from normal): (25.4mm = 1 inch)

A comparison of the August 2nd U.S. Drought Monitor to the August 30th U.S. Drought Monitor showed improvement across Southeast Arkansas where conditions improved from Extreme Drought (D3) to Severe Drought (D2). Northeast Louisiana and West Mississippi continued with Severe Drought(D2). Conditions remained Abnormally Dry (D0) or increased to Abnormally Dry (D0) across the remainder of the HSA.

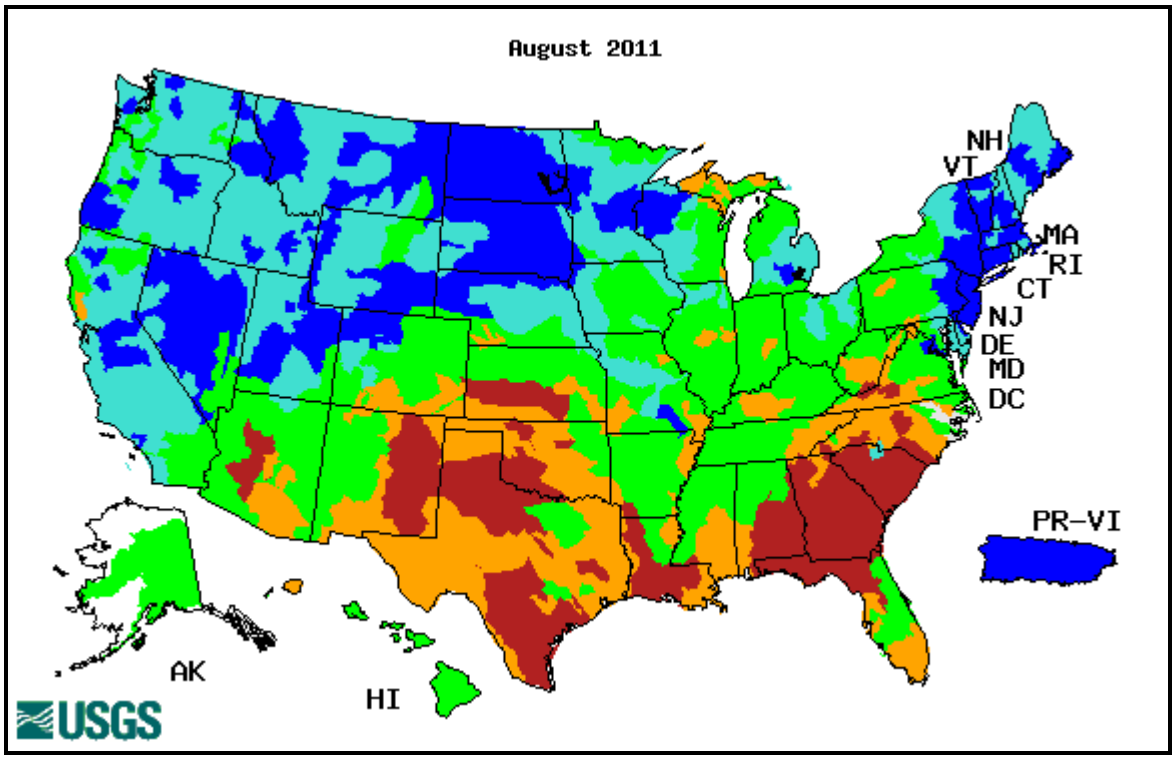


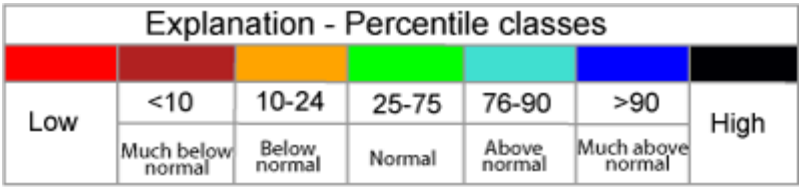
August 2, 2011



August 30, 2011

The United States Geological Survey's (USGS) August 2011 river streamflow records were compared with all historical August streamflow records. Streamflow is below normal across the Pascagoula and Lower River Basins and also across the Lower Ouachita Basin of Northeast Louisiana and Southeast Arkansas. Elsewhere, streamflow was normal.





There was no river flooding during the month of August.

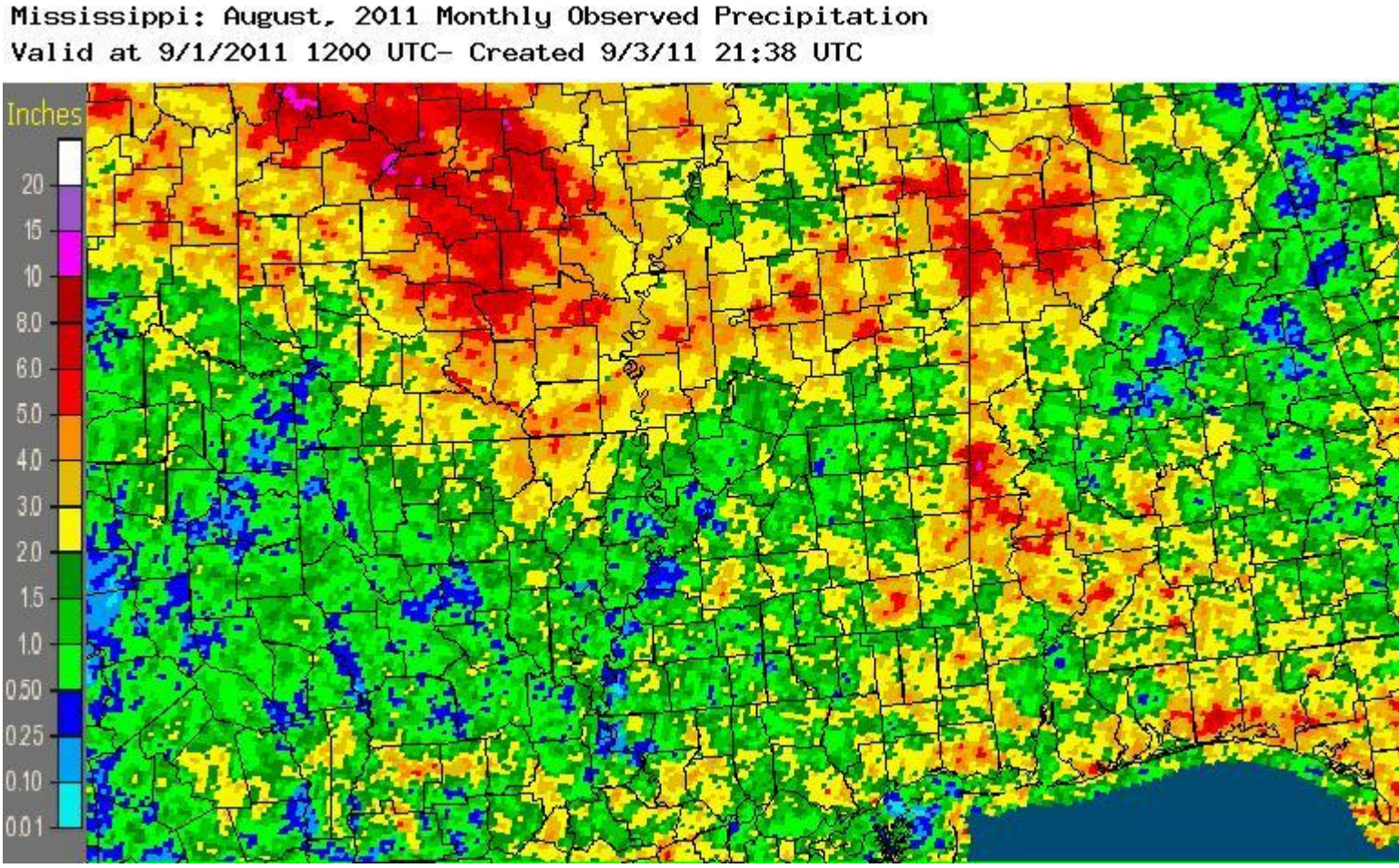
Soils moisture remains below normal across much of the area. Temperatures are expected remain at or above normal while rainfall is expected to remain below normal. With normal to below normal streamflow, flood potentials are as follows:

Pearl River System:	Below Normal.
Yazoo River System:	Below Normal.
Big Black River System:	Below Normal.
Homochitto River System:	Below Normal.
Pascagoula River System:	Below Normal.
Northeast LA and Southeast AR:	Below Normal.
Tombigbee River System:	Below Normal.
Mississippi River:	Below Normal.

Rainfall for the month of August

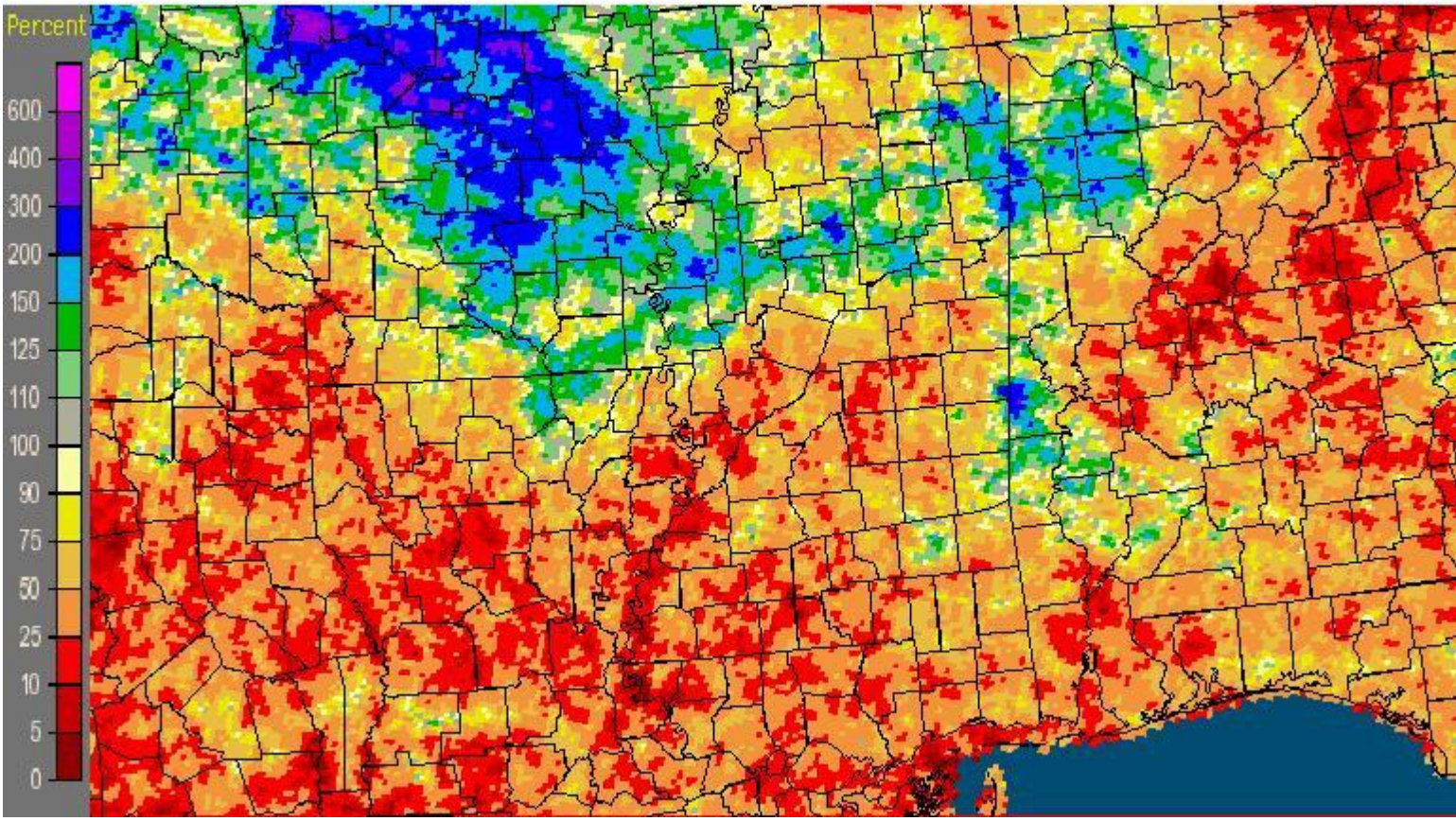
The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on July 31st until 7 am on August 31st were: 6.42 inches at Laurel, MS; 5.30 inches at Rolling, MS; 5.23 inches at Eupora, MS; 4.62 inches at Cleveland, MS; 4.48 inches at Grenada, MS; 4.30 inches at Grenada Dam, MS; 4.29 inches Okatibbee, MS; and 4.10 inches at Winona, MS;

The lowest monthly rainfall totals in the HSA were: 0.21 inches at Port Gibson, MS; 0.30 inches at Natchez, MS; 0.42 inches at Prentiss, MS; and 0.43 inches at Tallulah Vicksburg AP, MS



August 2011 Rainfall Estimates

Mississippi: August, 2011 Monthly Percent of Normal Precipitation
Valid at 9/1/2011 1200 UTC- Created 9/3/11 21:41 UTC



2011 August Percent of Normal Rainfall Estimates

Note: Observer rainfall and MPE may differ due to time differences.

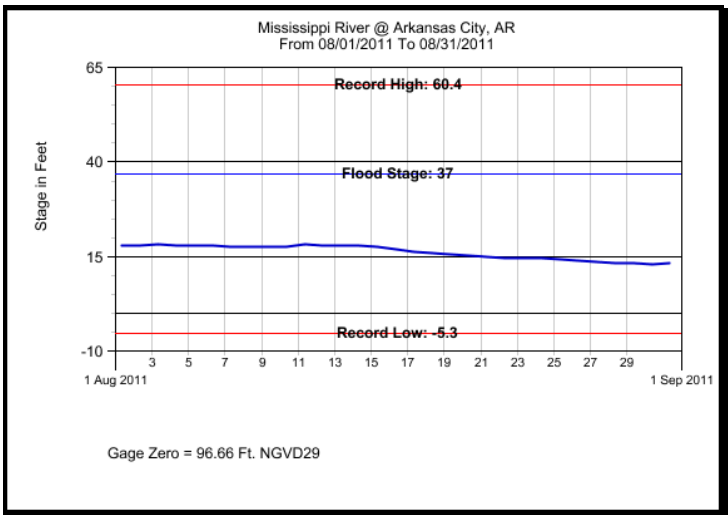
August rainfall for Selected Cities...

City	August (Airport)	Departure from Normal	2011 Rainfall	2011 Departure from normal
Jackson, MS	0.83	-3.41	25.62	-13.89
Meridian, MS	1.25	-2.74	36.99	-5.13
Greenwood, MS	1.71	-1.12	23.88	-13.89
Greenville, MS	2.38	-0.08	17.02	-20.47
Hattiesburg, MS	3.19	-1.54	42.51	-5.82
Vicksburg, MS	0.43	-3.22	21.77	-19.25

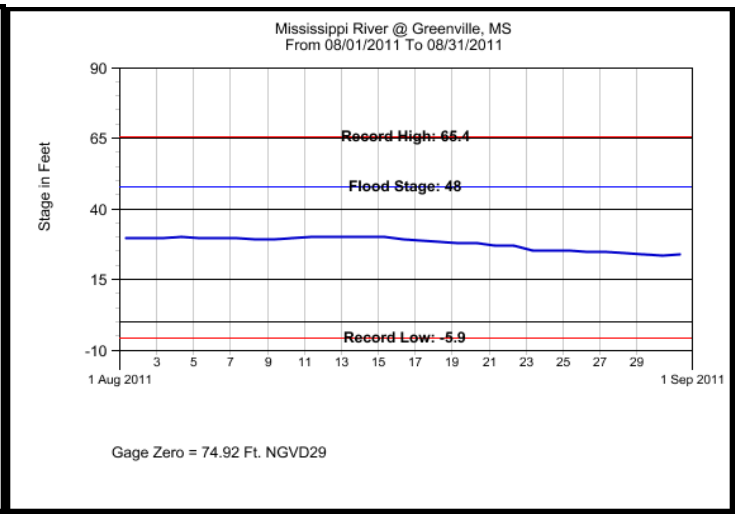
Mississippi River...

Mississippi River Plots for August, 2011

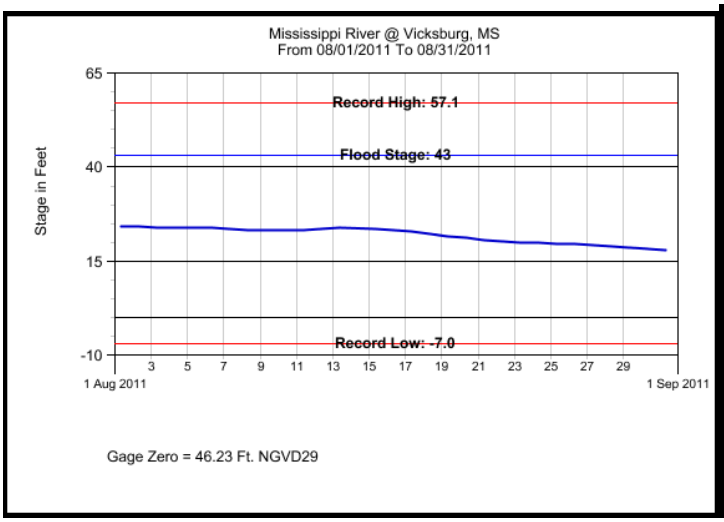
Plots Courtesy of the United States Army Corps of Engineers



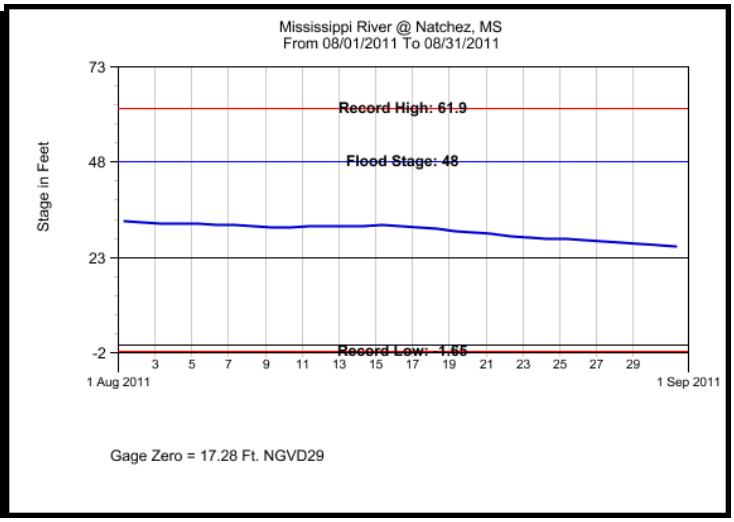
ARKANSAS CITY, MS



GREENVILLE, MS



VICKSBURG, MS



NATCHEZ, MS

Preliminary high and low stages for the month:

Location	FS	High Stage(ft)	Date	Low Stage(ft)	Date
Arkansas City, AR	37	18.35	08/03/11	12.89	08/30/11
Greenville, MS	48	30.27	08/12/11	23.64	08/30/11
Vicksburg, MS	43	24.39	08/01/11	17.84	08/31/11
Natchez, MS	48	32.23	08/01/11	25.80	08/31/11

Total Flood Warning products issued: 0
Total Flood Statement products issued: 0
Total Flood Advisories MS River : 0
Daily Rainfall Products (RRA'S) issued: 31
Daily River Forecast Products (RVS'S) issued: 31
Daily River Stage products (RVA'S) issued: 31

Marty V. Pope

Service Hydrologist &

Latrice Maxie

Assistant Hydrologist/Observing Program Leader (OPL)

Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District